

AMENDMENT

Listing of Claims

The following listing of claims replaces all previous listings or versions thereof:

1. (Cancelled)

2. (Currently amended) The isolated peptide of ~~claim 1~~ claim 4 or 7, wherein the isolated peptide inhibits aminopeptidase A activity.

3. (Cancelled)

4. (Currently amended) An isolated peptide of 50 amino acids or less that selectively binds aminopeptidase A ~~The isolated peptide of claim 1~~, wherein the isolated peptide comprises a peptide sequence selected from the group consisting of ~~comprises~~ SEQ ID NO:1, SEQ ID NO:2, ~~or SEQ ID NO:3~~ SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5 and SEQ ID NO:6.

5. – 6. (Cancelled)

7. (Currently amended) An isolated peptide that selectively binds aminopeptidase A ~~The isolated peptide of claim 1~~, wherein the isolated peptide is operatively coupled to a therapeutic agent.

8. (Currently amended) An isolated peptide that selectively binds aminopeptidase A ~~The isolated peptide of claim 1~~, wherein the isolated peptide is covalently coupled to a therapeutic agent.

9. (Currently amended) The isolated peptide of claim 7 or claim 8, wherein said therapeutic agent is a drug, a chemotherapeutic agent, a radioisotope, a pro-apoptosis agent, an anti-angiogenic agent, a hormone, a cytokine, a cytotoxic agent, a cytocidal agent, a cytostatic agent, a peptide, a protein, an antibiotic, an antibody, a Fab fragment of an antibody, a hormone antagonist, a nucleic acid or an antigen.

10. (Withdrawn) The isolated peptide of claim 9, wherein the anti-angiogenic agent is selected from the group consisting of thrombospondin, angiostatin, pigment epithelium-derived factor, angiotensin, laminin peptides, fibronectin peptides, plasminogen activator inhibitors, tissue metalloproteinase inhibitors, interferons, interleukin 12, platelet factor 4, IP-10, Gro- β , thrombospondin, 2-methoxyoestradiol, proliferin-related protein, carboxiamidotriazole, CM101, Marimastat, pentosan polysulphate, angiopoietin 2 (Regeneron), interferon-alpha, herbimycin A, PNU145156E, 16K prolactin fragment, Linomide, thalidomide, pentoxifylline, genistein, TNP-470, endostatin, paclitaxel, Docetaxel, polyamines, a proteasome inhibitor, a kinase inhibitor, a signaling peptide, accutin, cidofovir, vincristine, bleomycin, AGM-1470, platelet factor 4 and minocycline.

11. (Withdrawn) The isolated peptide of claim 9, wherein said pro-apoptosis agent is selected from the group consisting of etoposide, ceramide sphingomyelin, Bax, Bid, Bik, Bad, caspase-3, caspase-8, caspase-9, fas, fas ligand, fadd, fap-1, tradd, faf, rip, reaper, apoptin, interleukin-2 converting enzyme or annexin V.

12. (Withdrawn) The isolated peptide of claim 9, wherein said cytokine is selected from the group consisting of interleukin 1 (IL-1), IL-2, IL-5, IL-10, IL-11, IL-12, IL-18, interferon- γ (IF- γ), IF- α , IF- β , tumor necrosis factor- α (TNF- α), or GM-CSF (granulocyte macrophage colony stimulating factor).

13. (Withdrawn; currently amended) An isolated peptide that selectively binds aminopeptidase
~~The isolated peptide of claim 1,~~ wherein said peptide is attached to a molecular complex.

14. (Withdrawn) The isolated peptide of claim 13, wherein said complex is a virus, a bacteriophage, a bacterium, a liposome, a microparticle, a magnetic bead, a yeast cell, a mammalian cell or a cell.

15. (Withdrawn) The isolated peptide of claim 14, wherein said complex is a virus or a bacteriophage.

16. (Withdrawn) The isolated peptide of claim 15, wherein said virus is chosen from the group consisting of adenovirus, retrovirus and adeno-associated virus.

17. (Withdrawn) The isolated peptide of claim 15, wherein said virus is further defined as containing a gene therapy vector.

18. (Withdrawn) The isolated peptide of claim 14, wherein said peptide is attached to a eukaryotic expression vector.

19. (Withdrawn) The isolated peptide of claim 18, wherein said vector is a gene therapy vector.

20. (Currently amended) A pharmaceutical composition comprising the peptide of any one of claim 4, 7 or 8 [[1]] or an antibody that selectively binds aminopeptidase A.

21. (Currently amended) The pharmaceutical composition of claim 20, wherein the peptide is the peptide of further comprising the peptide of claim 4.

22. – 47. (Cancelled)

48. (Currently amended) A method for identifying a peptide that selectively binds aminopeptidase A ~~The peptide of claim 1, identified by a process comprising:~~

- a) contacting a cell or tissue expressing APA with a plurality of phage, wherein each phage comprises heterologous peptide sequences incorporated into a fiber ~~protein~~, protein;
- b) removing the phage that do not bind to the cell or tissue expressing APA, and APA;
- c) isolating the phage that bind the cell or tissue expressing APA; and
- d) testing the heterologous peptide of said phage to confirm that it binds APA.

49. (Currently amended) ~~The peptide of~~ method of claim 48, wherein the method is repeated at least twice.

50. (Currently amended) ~~The peptide of~~ method of claim 48, further comprising isolating and sequencing ~~sequencing~~ the isolated phage nucleic acid.

51. (Currently amended) The ~~peptide of~~ method of claim 48, wherein APA expression is endogenous.

52. (Currently amended) The ~~peptide of~~ method of claim 48, wherein APA expression is exogenous.

53. (Withdrawn; currently amended) An antibody that binds a peptide in accordance with ~~claim~~ claim 4.

54. (Withdrawn; currently amended) A method of inhibiting viral attachment to a cell comprising contacting the cell with an effective amount of a) a peptide in accordance with ~~claim~~ claim 4, 2) an antibody that binds APA, or c) an antibody in accordance with claim 53.

55. (Withdrawn) The method of claim 54, wherein the cell is in a human and the peptide or antibody is administered to said human.

56. – 63. (Cancelled)

64. (New) The isolated peptide of claim 4, 7 or 8, wherein the isolated peptide comprises SEQ ID NO:1.

65. (New; withdrawn) The isolated peptide of claim 4, 7 or 8, wherein the isolated peptide comprises SEQ ID NO:2.

66. (New; withdrawn) The isolated peptide of claim 4, 7 or 8, wherein the isolated peptide comprises SEQ ID NO:3.

67. (New; withdrawn) The isolated peptide of claim 4, 7 or 8, wherein the isolated peptide comprises SEQ ID NO:4.

68. (New; withdrawn) The isolated peptide of claim 4, 7 or 8, wherein the isolated peptide comprises SEQ ID NO:5.

69. (New; withdrawn) The isolated peptide of claim 4, 7 or 8, wherein the isolated peptide comprises SEQ ID NO:6.